POLICY FOR IMPLEMENTATION OF TOXICS STANDARDS FOR INLAND SURFACE WATERS, ENCLOSED BAYS, AND ESTUARIES OF CALIFORNIA (SIP)

Public Comments and Responses

FINAL

August 8, 2003

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1. General

Comment: U.S. Environmental Protection Agency's (USEPA's) May 1, 2001 letter approving specified water quality standards provisions should be incorporated into the text of the SIP because it contains specific understandings of certain sections in the SIP. *Comment #: 1-1; Commenter name: USEPA Region 9.*

Response: The understandings appear to be limited to the exceptions provisions. Staff does not believe there is a need to amend the SIP to include these understandings. State Water Resources Control Board (SWRCB) staff worked with USEPA to develop suggested procedures for case-by-case exceptions to the California Toxics Rule (CTR) criteria. These suggested procedures are set forth in a SWRCB memorandum dated July 8, 2002. SWRCB staff is currently working with USEPA to set forth recommended procedures for case-by-case exceptions to SIP provisions. Other specific issues can be addressed in clarifying memoranda as we gain further experience with the exceptions process and do not require a formal SIP amendment. USEPA proposals for modifying SIP exceptions provisions are addressed in Section 19 below.

Comment: Commenters believe that the SIP does not adequately protect California's waters for the following reasons:

- It is inconsistent with the Porter-Cologne Water Quality Control Act and the Clean Water Act (CWA) and its implementing regulations.
- The loopholes, omissions, exceptions, and delays authorized by the SIP will result in the institutionalization of weak permits for priority toxic pollutants.
- It does not contain water quality criteria/objectives, but instead purports to establish procedures, such as best management practices (BMPs), for implementing, through effluent limitations in individual discharge permits, the various criteria for priority toxic pollutants established in the CTR.
- Several publicly owned treatment works (POTW) permits have been adopted with effluent limits for few toxic pollutants even though these POTWs have a reasonable potential to discharge many different toxic pollutants.
- National Pollutant Discharge Elimination System (NPDES) permits for storm water discharges from several refineries failed to include limits for major hydrocarbon pollutants such as benzene and for combustion by-products such as PAHs.

Comment #s: 5-1, 5-2, 5-3, 5-12, 26-1, 26-20; Commenter names: Heal the Bay, San Diego Bay Council.

Response: Specific comments regarding SIP sections that commenters believe are problematic are addressed elsewhere in this document. Note, however, that the SIP does not establish BMPs as a means of compliance with effluent limitations, and effluent limitations are required where reasonable potential has been established. Also note that the SIP does not apply to storm water discharges.

Comment: Commenters believe that the SIP does not reflect real world conditions and is unfair to dischargers for the following reasons:

- A number of provisions would be problematic and result in significant compliance costs for POTWs.
- It sets forth a model for determining and calculating requirements that are often inappropriate and not logical in the context of individual permits.
- It lacks requirements for small POTWs that are both protective of water quality and not overly financially burdensome.
- It focuses on pollutants that are minor in terms of POTW contributions instead of on newer pollutants that demonstrate evidence of harm such as brominated compounds.
- It needs to provide a funding mechanism for installation of treatment processes.

Comment #s: 6-15, 7-1, 7-11, 19-1, 22-1, 25-1; Commenter names: California Association of Sanitation Agencies (CASA) and Tri-TAC, Dudek & Associates, Inc., San Francisco Public Utilities Commission, Sonoma County Water Agency, Southern California Alliance of POTWs.

Response: Specific comments regarding SIP sections that commenters believe are problematic or inappropriate are addressed in comments and responses elsewhere in this document. Note, however, that pursuant to federal regulations, POTWs that discharge pollutants that have reasonable potential to cause or contribute to a violation of a water quality standard must have an effluent limitation, regardless of whether there are newer problematic pollutants. The SIP cannot provide a funding mechanism for installation of treatment processes. Funding, if any, must be allocated through State or federal budgetary processes. POTWs can apply to the SWRCB's State Revolving Fund to finance their projects. However, they must work with their Regional Water Quality Control Board (RWQCB) so they can be put on the priority list.

Comment: California has determined that a 10^{-4} risk level is appropriate for directly consumed drinking water, and that 10^{-5} risk level is appropriate for Proposition 65, which regulates toxic pollutants discharged into sources of drinking water. Clearly, USEPA has recognized the State's discretion to utilize alternative risk levels, which USEPA has deemed "as meeting the requirements of the Act." This discretion should be clearly identified in the amendments to the SIP. *Comment #: 7-14; Commenter names: CASA/Tri-TAC.*

Response: Risk levels are appropriately considered at the standards-setting stage rather than the permitting stage. The SIP addresses implementation of existing standards, primarily through permitting. Risk levels are set in the CTR at 40 Code of Federal Regulations (CFR) 131.38(d)(4).

Comment: Commenters want the SIP to consider a separate set of standards for water bodies identified as being effluent dependent or dominated waters (EDWs). The SWRCB recognized that EDWs present unique circumstances and stated that EDWs would be addressed in Phase II of the SIP. If a Phase II is not developed, the categorical exemption or an approach that affords equivalent flexibility is needed. The SIP should contain a general discussion of the fundamentally different factors and benefits, derived by the environment and the citizens of the State, that need to be considered in a site-specific manner when permitting discharges to EDWs. *Comment #s: 13-1, 21-1, 23-1; Commenter names: City of Thousand Oaks, City of Vacaville, Mammoth Community Water District.*

Response: There are established procedures for addressing EDWs on a site-specific basis: 1) use attainability analysis to change the designated use of a water body; 2) Total Maximum Daily Loads (TMDLs) to allocate loads among all point and nonpoint sources; 3) site-specific translators that might provide relief from some metals limits; 4) SSOs; and 5) case-by-case exceptions, where appropriate, for specific pollutants of concern.

The SWRCB examined the SIP's impact on EDW dischargers when it reviewed the City of Vacaville's NPDES permit petition in September 2001. The SWRCB concluded the SIP contains enough flexibility to issue NPDES permits to EDW dischargers without further modification. It also found that some effluent limits based on an MUN designation for Vacaville's receiving water were inappropriate because MUN did not appear to be an existing or attainable use. The permit was remanded with instructions for the Regional Water Quality Control Board (RWQCB) to consider dedesignating MUN. That work is currently underway. Two other EDWs were included in the study so that models for use dedesignations could be developed. In an effort to refine these examples for statewide application, SWRCB staff have initiated contracts with outside agencies to examine aquatic life and recreational uses.

EDWs are unique in that they are dependent on or are dominated by effluent. This lack of dilution necessitates lower effluent limits to protect human health and aquatic life. It is important, however, to ensure beneficial uses are correctly designated. Strategic project 6 under goal 2 of SWRCB's Strategic Plan requires SWRCB staff to consider whether a statewide plan to address EDWs is necessary. Discussions are ongoing.

Comment: One commenter requests that the SIP clarify when it supersedes the Basin Plan. The State should specifically define conflict and develop examples of conflicts and how the policy decision can be fairly and equitably implemented. *Comment #: 18-7; Commenter name: City of San Jose.*

Response: The SIP is clear that it supersedes basin plan provisions dealing with the same subject matter that apply to implementation of priority pollutant standards. Thus, an actual conflict between a basin plan and the SIP is avoided. There is no need for the requested amendment.

Comment: Commenters want the SIP to specifically encourage water recycling. They suggest including a new categorical exception encouraging the use of high-quality reclaimed water for in-stream habitat restoration projects. *Comment #s: 3-22, 7-25; Commenter names: Bay Area Clean Water Agencies (BACWA), CASA/Tri-TAC.*

Response: The requested exception is overly broad. From a water quality standpoint, it would be preferable to use the case-by-case exception provisions, where appropriate, for those pollutants that actually pose a compliance problem.

2. Groundwater

Comment: Commenters request that the SIP clarify that the SIP and CTR criteria do not apply to permits for discharges that may affect groundwater, either through designation of the groundwater recharge (GWR) use or simply due to RWQCB concerns about the potential impacts of a particular discharge on groundwater. *Comment #s: 7-12, 9-1, 11-3; Commenter names: CASA/Tri-TAC, Los Angeles County Sanitation District (LACSD), Los Angeles RWQCB.*

Response: The requested change is unnecessary. It is clear that the CTR criteria apply only to the State's inland surface waters and enclosed bays and estuaries and not to groundwater [40 CFR section 131.38(a)]. The SIP, likewise, implements priority pollutant standards only for inland surface waters and enclosed bays and estuaries. It is also clear that the SIP and CTR do apply to permits for surface water discharges, which may also affect groundwater. Further, groundwater recharge is a recognized beneficial use of surface water that must be protected even though the CTR criteria do not apply directly to groundwater.

Comment: One commenter recommends that for dewatering permits, methods for dealing with naturally occurring background groundwater quality above CTR criteria should be incorporated into future revisions to the SIP. *Comment #: 11-8; Commenter name: Los Angeles RWQCB.*

Response: Groundwater with pollutants that exceed the CTR criteria can have adverse effects when discharged into surface waters. SWRCB's Office of Chief Counsel (OCC) has stated that construction dewatering permits must comply with water quality standards. Effluent from construction dewatering can vary greatly in terms of quantity of discharge, pollutant(s) of concern, length of time discharge will occur, and beneficial uses and flow of receiving waters. Reasonable treatment may be available to meet water quality standards. Therefore, site-specific facts are needed before a rational discussion of regulatory flexibility can occur.

The SIP implements the CTR and Basin Plan water quality objectives for priority toxic pollutants. SIP Section 1.2 requires at least one effort at gathering data for priority toxic pollutants. These data are then used to conduct a "reasonable potential" analysis to determine whether effluent limitations are required for certain pollutants. After that, SIP Section 1.3 provides that for reissuance of subsequent permits the RWQCBs can exempt from monitoring requirements "low-volume discharges that do not have a significant adverse water quality impact." In addition, a SIP case-by-case exception from complying with CTR or Basin Plan objectives for priority pollutants for some types of dewatering projects may be possible. Note that there are no such provisions for exceptions for substances such as fuels, nitrates, non-priority pollutants, etc.

3. Reasonable Potential (Section 1.3)

Guidance

Comment: Commenters feel that the SIP needs better guidance for reasonable potential calculations. The SIP should be modified to specify the method for determining the hardness value to be used, in calculating the appropriate criterion for the reasonable potential analysis. *Commenter #s: 6-4, 18-1, 18-5; Commenter names: City of San Jose, Sonoma County Water Agency.*

Response: The SIP does not contain methods for determining hardness. CTR freshwater aquatic life criteria for certain metals are expressed as a function of hardness because hardness and/or water quality characteristics that are usually correlated with hardness can reduce or increase the toxicities of some metals. Hardness is used as a surrogate for a number of water quality characteristics that affect the toxicity of metals in a variety of ways. Increasing hardness has the effect of decreasing the toxicity of metals.

The challenge is to establish hardness values that are fully protective of aquatic life but not unnecessarily stringent. In some cases, it is relatively easy to establish hardness because effluent and receiving water have similar values, and these values do not vary greatly temporally or spatially in the water body. In other cases, some or all of these factors may vary significantly. Sampling location and/or seasonality of sampling could be important in these cases. Whether the data are adequate to establish hardness must be examined on a case-by-case basis. A small data set for one discharge and/or receiving water may mean uncertainty of hardness variability. However, the same size data set for a different discharge may be sufficient to characterize hardness in the water body.

The preferable approach to addressing this issue is additional training to educate RWQCB staff regarding the factors to consider when determining data needs to establish hardness values. Such training would enable permit writers to determine, on a site-specific basis, how much and what kind of data are needed. This approach is preferable to adoption of a SIP revision that attempts to establish statewide requirements that fit all water bodies.

Comment: The SWRCB should make sure that reasonable potential is only determined in accordance with Water Code §13263.6(a). *Comment #:7-5; Commenter names: CASA/Tri-TAC.*

Response: The commenter interprets Water Code section 13263.6(a) as a restriction on the RWQCBs' ability to prescribe effluent limitations. This interpretation is erroneous. Section 13263.6(a) establishes a "floor" for when effluent limitations must appear in a permit. The plain wording of the statute makes it clear that it does not establish a "ceiling." See SWRCB Order WQO 2002-12. Further, the statute cannot be construed in a manner that conflicts with the CWA's permit program and implementing USEPA regulations. See 33 USC section 1311(c)(1)(B); 40 CFR section 122.44(d)(1).

Comment: Clarify how the SIP's reasonable potential procedure accounts for effluent variability and whether it is fully consistent with 40 CFR 122.44(d). *Comment #: 1-5; Commenter name: USEPA*

Response: The SIP addresses effluent variability by review of the observed range of effluent data and determination of maximum effluent concentration (MEC). Regulations require nothing more specific. Uncertainty with data sets must be addressed on a case-by-case basis. A small data set for one discharge and/or receiving water may mean uncertainty of effluent variability. However, the same size data set for a different discharge may be sufficient to evaluate effluent variability. The RWQCBs will use their best professional judgement to evaluate the size and information contained in the data set to determine whether there is adequate data.

Not Stringent Enough

Comment: To be consistent with USEPA's guidance provided in the Technical Support Document (TSD) for Water Quality-Based Toxics Control (1991), the SIP should clarify that when conducting a reasonable potential analysis the RWQCBs may use best professional judgment to determine if effluent limits should be developed when effluent and receiving water data are not available. *Comment #: 26-3; Commenter name: Heal the Bay.*

Response: No change to the SIP is needed because SIP Section 1.3, Step 7, states that RWQCBs may use information other than effluent and receiving water data to determine reasonable potential.

Comment: Commenter requests that the SIP require the development of effluent limits for toxic pollutants that have the potential to be present in the discharge if the receiving water body is listed on the 303(d) list as impaired due to toxic pollutants, regardless of whether all reported detection limits (DLs) are above the criteria and regardless of whether there are existing effluent and receiving water quality monitoring data. *Comment #: 26-4; Commenter name: Heal the Bay.*

Response: SIP Section 1.3, Step 7, states that RWQCBs may use other information to determine reasonable potential. Therefore, the 303(d) listing of a water body can be considered under existing SIP provisions.

Comment: The SIP should allow the RWQCBs to use other information when conducting a reasonable potential analysis to determine if an effluent limit should be developed for a discharge in the event that all reported DLs of a pollutant in the effluent are greater than the most stringent water quality criterion. Otherwise, the provision provides a gaping loophole through which dischargers can avoid effluent requirements. In addition, the SIP should explicitly state that effluent limits can be established when all DLs are greater than criterion based on additional information as outlined in 40 CFR 122.44(d)(1)(ii*). Comment #: 5-6, 26-5; Commenter names: Heal the Bay, San Diego Bay Council.*

Response: No amendment to the SIP is needed. Section 1.3, Step 7, allows the RWQCBs to use and consider other information when conducting a reasonable potential analysis.

Too Stringent

Comment: Commenters do not believe that a pollutant's characterization as bioaccumulative or a 303(d) listing for a particular pollutant are a sufficient basis on which to conclude that reasonable potential exists. The discharger should be allowed to conduct a study to determine if a pollutant is bioaccumulating or affecting the water body's assimilative capacity. *Comment #s: 3-21, 8-3; Commenter names: BACWA, Western States Petroleum Association.*

Response: Waiting until a pollutant bioaccumulates before setting effluent limitations is inappropriate. The steps detailed in SIP section 1.3 describe how to determine reasonable potential for all priority pollutants. No specific outcome is assumed; however, it is important that RWQCBs be allowed discretion with respect to bioaccumulatives and 303(d)-listed pollutants.

Comment: The SIP should include a provision for sources that are demonstrated to be *de minimis*, (e.g., less than 1% of the total load of a pollutant) regardless of whether reasonable potential "technically" exists for such a source. *Comment #: 7-17; Commenter names: CASA/Tri-TAC.*

Response: If reasonable potential exists, the discharge is not *de minimis*. The "reasonable potential" concept, in essence, encompasses the *de minimis* principle. Discharges that don't have reasonable potential are *de minimis.*

Comment: For effluent data, observed maximum pollutant concentrations should be defined as detected values greater than minimum levels (MLs), RMLs, or other applicable reporting limits. If all effluent data are nondetect, commenters request that:

- Additional monitoring may be required instead of an effluent limit.
- The SIP provide clarification on the kinds of "other information" that justify a reasonable potential determination or eliminate the use of "other information" to establish reasonable potential.
- At the least, the "CWA 303(d) listing for a pollutant" be deleted from the "other information" list.
- A performance goal be established that, once exceeded, requires investigation into the cause and implementation of a pollution prevention program.

Comment #s: 6-1, 6-9, 7-3, 7-4, 8-11, 9-2, 9-5, 9-3, 9-7, 9-8, 9-12, 12-7, 12-14, 18-4, 25-3, 25-4; Commenter names: CASA/Tri-TAC, City of San Jose, LACSD, Sonoma County Water Agency, Southern California Alliance of POTWs, SRCSD, Western States Petroleum Association.

Response: No change is necessary. For reasonable potential determinations, it would not be appropriate to prohibit use of effluent data that were established using lower DLs than MLs, RMLs, etc. When determining if the potential for an excursion of a water quality objective exists, all relevant data should be considered including monitoring data using more sensitive analytical procedures. Nowhere in the SIP is there a requirement for an effluent limit based on nondetect effluent data. SIP section 1.3, Step 8, provides for additional monitoring where data

are unavailable or insufficient, and provides that this monitoring will occur in the place of an effluent limit. SIP section 1.3, Step 7, provides the types of "other information" that may be considered, and further clarification is not necessary. Use of other information must be explained in the permit's fact sheet. Use of a 303(d) listing must be explained accordingly. RWQCBs currently have the authority to include performance goals in permits, but not in place of effluent limitations when reasonable potential has been established.

Comment: Commenter recommends that the SIP consider reasonable potential to be indeterminate in situations where all effluent data for a pollutant are below the DL, with the exception of bioaccumulative or situations where other data indicate that the discharge is contributing to water quality problems. In such situations, the permit would require continued monitoring for those pollutants using the most sensitive analytical procedure. Regarding bioaccumulatives, reasonable potential determinations have to take into consideration ambient data and impairments, such as sediment quality, fish tissue contamination, and health advisories. *Comment #: 1-5: Commenter name: USEPA Region 9.*

Response: No change is necessary. The SIP does not require that effluent limits be established based on nondetect effluent data. The SIP currently allows RWQCBs to consider bioaccumulation and other data to which commenter refers.

Comment: Wording should be included to describe the process for eliminating effluent limits from the previous permit if no concentrations above the criteria have been observed, and there is little reasonable potential for such a discharge or if the previous limits were based on the 1991 Inland Surface Water Plan and Enclosed Bays and Estuaries Plan (ISWP). *Comment #: 6-2; Commenter name: Sonoma County Water Agency.*

Response: The commenter's concern appears to address the case where a RWQCB includes prior permit limits in a later permit due to antibacksliding restrictions. The requested change appears to be unnecessary. Prior permit limits based on the 1991 statewide plans should no longer be an issue since the plans were rescinded nine years ago. In addition, the SWRCB has provided guidance in its orders on the application of antibacksliding where a pollutant is discharged to a water body that is in attainment of water quality standards and where there is no reasonable potential. In general, the application of antibacksliding will be fact-specific and is better addressed on a permit-specific basis.

Dilution

Comment: Commenters oppose how the SIP handles dilution credits in determining reasonable potential. They believe the procedure is overly conservative and is not consistent with the TSD and the California Ocean Plan. Step 4 in the SIP should be modified to allow effluent data to be adjusted to consider dilution, if applicable, since this would reflect the concentrations that would actually be observed in the environment. Commenters also request that dilution not be limited for bioaccumulative pollutants and that the RWQCBs not be given the authority to remove dilution at their discretion without just cause. *Comment #s: 3-7, 6-10, 7-4, 9-4, 12-8, 25-5; Commenter names: BACWA, CASA/Tri-TAC, LACSD, Sonoma County Water Agency, Southern California Alliance of POTWs, SRCSD.*

Response: States have the authority to be more conservative than the TSD. The SIP is less conservative than the TSD in some aspects (e.g., it does not require application of a statistical factor that accounts for uncertainty). RWQCBs must have the authority to limit or deny mixing zones. Mixing zones are, by definition, areas where water quality standards are exceeded. Therefore, there is the potential for adverse impacts to aquatic life or human health. RWQCBs must have the authority to limit or deny mixing zones on a site-specific basis to avoid significant impacts.

Modeling

Comment: Commenters believe that the SIP's steady-state model does not accurately depict receiving water conditions. They found that dynamic models are more scientifically valid for determining actual water quality conditions. Therefore, the SIP should give preference to the use of dynamic models over steady-state models when determining reasonable potential. *Comment #s: 3-20, 7-16, 12-1, 12-2, 12-3; Commenter names: BACWA, CASA/Tri-TAC, SRCSD.*

Response: The SIP allows the use of dynamic models approved by RWQCBs. Determining whether the steady-state model or a dynamic model best represents the specifics of a given discharge should be left to the RWQCB's discretion. Dynamic models require extensive data sets. Small dischargers may object to acquiring the information necessary for a dynamic model. Further, the SIP allows development of seasonal effluent limitations under the steady-state model which more closely account for critical conditions that can occur at the same time.

Metal Translators

Comment: If ambient receiving water data are included in the reasonable potential analysis, a more logical way to apply the translator would be to first compare the dissolved criteria with the ambient dissolved metals levels to determine reasonable potential. Then, if reasonable potential exists, use the translator with the dissolved criteria and any dilution credit to calculate total metals effluent limits. The current method likely leads to more reasonable potential findings and more stringent effluent because of potentially large swings in total metals levels. *Comment #s: 3-3, 4-2, 6-5, 7-18, 9-2, 14-3, 15-3; Commenter names: BACWA, CASA/Tri-TAC, City of Santa Rosa, LACSD, San Francisco Bay RWQCB, Sonoma County Water Agency, Town of Windsor WWTF.*

Comment: Propose changes to Section 1.3 (with additional changes to other sections to be made accordingly) as follows:

Step 1: …USEPA conversion factor (Appendix 3). <u>In the event dissolved background data are available, Steps 5 and 6 should be conducted using dissolved concentrations</u>.

Step 6: …Compare the B from Step 5 or the adjusted B <u>(in dissolved concentration, if available)</u> to the C <u>(in dissolved concentration, if available)</u> from Step 1. Comment #: 4-2; Commenter name: San Francisco Bay RWQCB.

Comment: The approach contradicts the USEPA Metals Policy and is technically flawed. USEPA's Policy states that dissolved metals objectives are to be used to assess toxicity to aquatic life, whereas the SIP regulates based on total metals levels in receiving waters. Application of the translator should be the last step in the calculations (rather than the first) to properly determine total effluent limits from dissolved objectives. *Comment #: 12-10; Commenter name: SRCSD.*

Response: No change is warranted. All metals in a discharge have the potential to become dissolved regardless of their status in the effluent or receiving water. Many factors determine metal ion availability from an aqueous solution. The available, or dissolved, fraction can change with oxidation state, pH, hardness, dissolved solids, and suspended solids. The mechanisms responsible for sequestering metals can vary from weak dipole-dipole interactions to full ionic bonding. Blanket assumptions that the dissolved concentration is the same throughout a water body and will not change over time are inappropriate. Applying a translator to the observed dissolved metal concentration is therefore a better representation of the mechanisms responsible for reducing availability. A site-specific translator, developed pursuant to the SIP, accounts for seasonal and spatial variations in effluent and receiving water quality in a manner that is protective of receiving water beneficial uses.

It would be possible to conduct a study that characterizes the temporal and seasonal variation of the dissolved concentrations of metal in a water body and compare these dissolved concentrations with the criteria. However, in order to protect against toxic effects, a study addressing the factors required in the SIP translator section must be completed. The results of this study would be identical to the results of a translator study.

Since the results of these studies would be identical, the issue seems to be whether it is necessary to do a study to properly characterize the temporal and seasonal variations of the fraction of metal that is dissolved in receiving waters. For the reasons outlined above, it is critical to do so to avoid aquatic life toxicity.

Ambient Background Concentrations

Comment: Commenters do not agree with the use of ambient background concentration to determine reasonable potential. The following is a list of suggestions:

- Instead of establishing an effluent concentration limit, the discharger should receive an "effluent trigger concentration," that would require further investigation into the cause of the elevated concentration and could be coupled with a pollution prevention program if a consistent pattern emerges upon further investigation.
- Proposed changes to language of Section 1.3 (other changes made accordingly):
    - *Step 3: If the pollutant was not detected in any of the effluent samples and all of the reported DLs are greater than or equal to the C value, proceed with Step 7.*
    - *Step 6: …If the B is greater than the C, and the MEC is greater than B, then an effluent limitation is required and the analysis for the subject pollutant is complete. If the B is less than or equal to the C, proceed with Step 7.*

- Minor dischargers should be excluded from effluent limits when ambient background data triggers reasonable potential so that a substantial burden is not placed on ratepayers with no water quality benefits.
- Ambient background concentration should not be used as the sole basis for a reasonable potential determination.
- When ambient background concentrations are greater than the criterion and effluent concentrations are less than the background concentration, reasonable potential should only be established for bioaccumulative pollutants.

Comment #s: 3-2, 4-1, 6-1, 7-2, 9-5, 14-4, 15-4, 16-1, 18-3, 22-2, 24-1, 25-2; Commenter names: BACWA, CASA/Tri-TAC, City of San Jose, Central Valley RWQCB, City of Santa Rosa, LACSD, San Francisco Bay RWQCB, San Francisco Public Utilities Commission, Sonoma County Water Agency, Southern California Alliance of POTWs, Town of Windsor.

Response: If the maximum observed ambient concentration exceeds the established water quality criteria, the potential for impairment of the water body exists. Discharge of the subject pollutant may potentially contribute to such an impairment. This is a proactive approach to protection of the State's surface water bodies. However, this proactive approach could be maintained by requiring dischargers to monitor for the presence of the pollutant in their effluent. Therefore, this section of the SIP could be amended to eliminate effluent limitations based solely on ambient background concentrations. The SIP could require cautionary monitoring instead of effluent limitations in this situation.

Comment: Where the ambient background concentration is due wholly to natural sources or long-term man-made sources, correction of which would create greater impacts than the status quo, an effluent limitation should be set at the ambient background concentration and made a SSO. *Comment #: 23-4; Commenter name: City of Thousand Oaks.*

Response: A SIP amendment is unnecessary. Current USEPA guidance addresses aquatic life criteria set at background. Further, the USEPA water quality standards regulations authorize dedesignation of potential uses where human-caused pollution prevents attainment of the use, and it would cause more environmental damage to correct than to leave in place. 40 CFR section 131.10(g)(3). SSO work can proceed without a SIP amendment. Note that, under the circumstances described in the comment, the SSO would have to come first.

Comment: Detection levels should not be used as a surrogate for ambient background concentrations. These levels should not be used as inferred or presumed concentrations for purposes of regulatory decisions. *Comment #s: 10-1, 23-3, 23-7; Commenter names: City of Riverside, City of Thousand Oaks.*

Response: Detection levels are treated in this manner only when assessing reasonable potential based on ambient background concentrations and for estimating assimilative capacity, not for compliance determinations. This is a proactive approach for reasonable potential determinations, because if the ambient water exceeds the water quality criteria, the water body may be impaired and monitoring via effluent limitations can help to ensure that the discharge does not contribute to an impairment. The SWRCB may amend the SIP to eliminate effluent limitations which are

based solely on ambient background concentrations and, instead, require precautionary monitoring. DLs are used to estimate assimilative capacity only when no samples with detected concentrations are available. This is appropriate so that no erroneous assumptions are made about the presence of assimilative capacity that may not exist. (See further discussion under responses to comments in Section 4.)

Comment: Commenters would like the ambient background and effluent concentration values used in determining reasonable potential and calculating effluent limits changed. For human health-based water quality criteria, the mean concentration value should be used (or the 50th percentile value). The concentration values for aquatic life criteria should consider that the criteria are based on concentrations not to be exceeded once every three years (or the 95th percentile value*). Comment #s: 3-14, 7-4, 6-6, 9-4, 9-6, 12-6, 14-6, 15-6; Commenter names: BACWA, CASA/Tri-TAC, LACSD, City of Santa Rosa, Sonoma County Water Agency, SRCSD, Town of Windsor.*

Response: Without some meaningful cap on short-term maxima, long-term averages (LTA) (e.g., one, five, or seventy years) present an unreasonable risk to public health. Ignoring maximum concentrations could allow lethal concentrations of some pollutants to be balanced by proportionally lower concentrations at earlier or later dates. Effluent limitations as described in 40 CFR 122.45(d)(2) may prevent averaging periods longer than one month. In terms of allowing aquatic life criteria to be exceeded once in three years, very frequent monitoring would be necessary to assure that an allowed exceedance is not preceded or followed by other, undetected excursions.

4. Effluent Limits (Section 1.4)

Guidance

Comment: If the ambient background concentration is greater than the criterion, an effluent limit is required, although the SIP does not provide guidance as to what this limit should be. The commenter recommends that the limitation be set at the ambient background concentration. Also, if the ambient concentration is due wholly to natural sources or long-term, man-made sources, the correction of which would create greater impacts than the status quo, the ambient background concentration should be made a SSO. *Comment #: 23-4; Commenter name: City of Thousand Oaks.*

Response: If ambient background is greater than the criterion, the receiving waters do not have assimilative capacity for the pollutant. The permit writer could not legally allow the pollutant concentration in the discharge at the end-of-pipe to exceed the criterion. Current USEPA guidance addresses aquatic life criteria set at background. Further, the USEPA water quality standards regulations authorize dedesignation of potential uses where human-caused pollution prevents attainment of the use, and it would cause more environmental damage to correct than to leave in place. 40 CFR section 131.10(g)(3). SSO work can proceed without a SIP amendment. Note that, under the circumstances described in the comment, the SSO would have to come first.

Comment: The SIP needs to clarify whether NPDES permits need weekly limits. The SIP should include a conversion method for calculating weekly average limitations for priority pollutants or a statement that these limitations applied as weekly averages are impracticable. It would also be helpful if Step 6 in the effluent limits section includes the same daily maximum language in Step 5 of the effluent limits section: *"For this method, maximum daily effluent limitation shall be used for POTWs in place of average weekly limitations." Comment #s: 6-12, 11-1, 24-2; Commenter names: Central Valley RWQCB, Los Angeles RWQCB, Sonoma County Water Agency.*

Response: USEPA's NPDES permit regulations at 40 CFR 122.45(d)(2) require that the limits for POTW permits be stated as average weekly and average monthly limits "unless impracticable." USEPA states in its TSD that, in lieu of an average weekly limitation (AWL) for POTWs, USEPA recommends establishing a maximum daily limitation (MDL) for toxic pollutants and pollutant parameters in water quality permitting. This is appropriate for at least two reasons. First, the basis for the 7-day average for POTWs derives from the secondary treatment requirements. This basis is not related to the need for ensuring achievement of water quality standards. Second, a 7-day average, which could comprise up to seven or more daily samples, could average out peak toxic concentrations, and, therefore, the discharge's potential for causing toxic effects would be missed. An MDL, which is measured by grab sample, would be toxicologically protective of potential acute toxicity impacts.

Comment: Commenters request guidance regarding what data RWQCBs should consider as valid, relevant, and representative. The term "valid" should be defined such that only data of defensible sound scientific minimum QA/QC criteria are used. There should be a minimum

amount of data specified. *Comment #s: 8-3, 12-11, 23-2; Commenter names: City of Thousand Oaks, SRCSD, Western States Petroleum Association.*

Response: RWQCB staff must explain in a permit's fact sheet their reasonable potential determinations and derivation of permit limits. The SIP gives the RWQCBs the authority to determine the validity of appropriate data, and this is the correct approach. The SWRCB has also adopted precedential orders that interpret various SIP provisions relating to reasonable potential determinations and effluent limitations. If dischargers question the validity and relevancy of the available data, they may collect additional data that satisfies these concerns and submit it as part of their Report of Waste Discharge. Some small dischargers object to requirements for additional data beyond that required in SIP section 1.2.

Comment: The SIP should be modified to reflect the principle that the definitions and methods set forth in the Basin Plan – not in the CTR – are properly applied to footnote b parameters in Tables III-2A and III-2B in the 1986 Basin Plan, while CTR definitions and methods apply to CTR criteria. *Comment #: 8-12; Commenter name: Western States Petroleum Association*

Response: The comment refers to provisions in the San Francisco Bay RWQCB Basin Plan. RWQCB staff have prepared a Basin Plan amendment that will substitute CTR criteria for the objectives in the tables referred to above. A public hearing on the proposed amendment was held June 18, 2003. The SWRCB anticipates that the commenter's concern will become moot.

Comment: Commenters request guidance on ambient hardness calculations. The SIP does not specify how ambient hardness should be calculated for application to hardness-dependent metals criteria. The SIP should be modified to specify the method for determining the hardness value to be used (e.g., use either median or average hardness values). *Comment #s: 3-4, 4-3, 6-4, 12-5; Commenter names: BACWA, San Francisco Bay RWQCB, Sonoma County Water Agency, SRCSD.*

Comment: When receiving water hardness is not available, effluent limits for metals should be based on minimum hardness values measured in the effluent, instead of average values. Using an average hardness value results in limits that are not protective of aquatic life at all times. When the actual hardness of the discharge is below the average value, the amount of bioavailable metal in the discharge will increase above the adjusted pollutant concentration listed in CTR criterion. *Comment #: 26-10; Commenter name: Heal the Bay.*

Response: Appropriate hardness values vary by the nature of the discharge. The choice of what data to use may be based on available dilution and the type of criterion (e.g., acute or chronic) being calculated. To the extent that there are inconsistencies among the RWQCBs with respect to choosing hardness data, it may be beneficial to provide further training that will adequately address this problem.

Method

Comment: Commenters do not agree with how the SIP calculates effluent limits based on aquatic life and human health criteria. They suggest the following be revised:

- Effluent limit calculations should consider that aquatic life criteria are based on concentrations not to be exceeded "once every three years on average."
- Effluent limits based on aquatic life criteria should be based solely on the wasteload allocation and the dilution factor.
- MDELs should not be calculated for human health criteria since they are based on long-term exposure (LTAs would be more appropriate).
- Set annual limits for human health criteria unless there is a potential for acute toxicity.

Comment #s: 6-12, 7-6, 7-7, 9-4, 9-11, 10-2, 10-5, 25-6; Commenter names: CASA/Tri-TAC, City of Riverside, LACSD, Sonoma County Water Agency, Southern California Alliance of POTWs.

Response: No change is warranted. In terms of allowing aquatic life criteria to be exceeded for one hour every three years, very frequent monitoring would be necessary to ensure that an allowed exceedance is not preceded or followed by other undetected excursions. Using the wasteload allocation (which includes the dilution factor) directly as an effluent limitation does not adequately protect water quality because it does not account for effluent variability, uncertainty with related to sample size, and averaging periods. USEPA, therefore, recommends a statistical procedure to convert the wasteload allocation into water quality-based effluent limitations, and sets forth these procedures in the Technical Support Document for Water Quality-Based Effluent Limitations (TSD) (USEPA 1991). The SIP requires calculation of water quality-based effluent limits based on this USEPA guidance. Without some meaningful cap on short-term maxima, LTAs (e.g., one, five, or seventy years) present an unreasonable risk to public health. Ignoring maximum concentrations could allow lethal concentrations of some pollutants to be balanced by proportionally lower concentrations at earlier or later dates. SIP requirements for calculating daily maximum limits for toxic pollutants are based on USEPA recommendations in the TSD.

Comment: Commenters are opposed to the method in which the LTA is applied in effluent limit calculations. The SIP produces overly conservative effluent limits by basing both the chronic and acute effluent limits on the lowest LTA discharge condition. The respective acute and chronic LTAs should be used instead. Also, the requirement to use the 95 percent probability when calculating the average monthly limit from the LTA is not scientifically justifiable unless the 95 percent probability is used to calculate the LTA initially (which is not the case in the SIP). The probability levels used to calculate the LTA and the average monthly limit should be the same. *Comment #s: 3-9, 6-6, 7-9, 10-2, 10-3, 12-16, 14-5, 15-5, 25-6; Commenter names: BACWA, CASA/Tri-TAC, City of Riverside, City of Santa Rosa, Sonoma County Water Agency, Southern California Alliance of POTWs, SRCSD, Town of Windsor.*

Response: Commenters suggest LTAs are used to calculate acute and chronic limitations regardless of whether the LTA is for acute or chronic criteria. Under SIP Section 1.4, the most stringent of the LTA_{acute} or $LTA_{chronic}$ is used to calculate average monthly or MDELs. This is appropriate for two reasons. First, it allows effluent limitations to be based on the most protective condition, whether acute or chronic. Second, it eliminates the need for two effluent limitations, one to protect acute effects and another to protect against chronic effects. The SIP is consistent with USEPA's TSD (1991) in all matters discussed in these comments.

Comment: When a facility discharges a pollutant that has a reasonable potential to contribute to a water quality impairment, regardless of whether monitoring data are available or below the historical DL, an effluent limit should be calculated for the pollutant. *Comment #: 26-2; Commenter name: Heal the Bay.*

Response: The SIP requires that all available information be used to determine reasonable potential, not just effluent and receiving water data, and this is appropriate. By definition, if a facility discharges a pollutant that has reasonable potential to cause or contribute to an excursion above a water quality standard, an effluent limitation is required.

Comment: When an effluent limit is calculated as less than the ML, the discharger should receive the applicable ML as an interim effluent limit, pending the development of lower quantitation levels. In the case where an ML does not exist for a pollutant, continued monitoring should be required instead of establishing an effluent limit. *Comment #s: 3-5, 3-16; Commenter name: BACWA.*

Response: Where a pollutant discharge has "reasonable potential" and, consequently, an effluent limitation must be developed, the limit must be based on the criterion/objective. It cannot legally be based on the ML. Where an ML does not exist for a pollutant but reasonable potential is established, the permit must include an effluent limit based on the criterion/objective. Under these circumstances, the RWQCB must establish an ML in the permit.

Coefficient of Variation (CV)

Comment: Commenters are opposed to using an assumed value (e.g., one half the DL) when determining the CV in cases where there are not sufficient data or all data are not detected (i.e., DNQ or ND). This could result in a CV of 0.6, in which case the average monthly limit for protection of aquatic life could be more stringent than the CTR criterion. The SIP should require that the actual DL be used to calculate the CV when all values are nondetect and that no limits be allowed that are more stringent than CTR criteria. *Comment #s: 3-8, 3-10, 6-7, 7-5, 7-8, 9-10, 12-15, 12-17, 23-5, 25-6; Commenter names: BACWA, CASA/Tri-TAC, LACSD, City of Thousand Oaks, Sonoma County Water Agency, Southern California Alliance of POTWs, SRCSD.*

Response: As part of revisions to the 1997 draft, staff examined different approaches to nondetect values in a data set. Options included substitution with a constant, substitution with expected values, maximum likelihood estimation techniques, and linear regression on order statistics. Substituting a constant value outperformed other options. Treating nondetect values

as one half the DL for purposes of CV calculations is an appropriate approximation. It is a compromise between treating them as zero or the DL.

Comment: It would be helpful if a statement could be included in the discussion of CV and multipliers to clarify that "sometimes, depending on the CV of the data, the final effluent limitations may end up being more stringent than the CTR criteria." *Comment #: 11-2; Commenter name: Los Angeles RWQCB.*

Response: Dischargers think that the monthly average limit should not be lower than the criterion value. While this is true for human health criteria (where the average monthly limit is calculated first, and the maximum daily limit is calculated from the average monthly value), it is not true for aquatic life criteria. For aquatic life criteria, it is not that an average monthly effluent limitation would be "more stringent" than the CTR criteria, but that the effluent limitation would have a "lower concentration" than the CTR criteria. The effluent limitation is calculated to ensure that the criteria are met in receiving waters. The lower concentration arises because of effluent variability. Highly variable effluents have lower average monthly effluent limitations to counter the extremely high concentrations that occur from time to time. Therefore, a facility needs to operate on average at the average monthly limit in order to allow in-stream concentrations to meet criteria.

Mass Limits

Comments: The SIP should expressly state that mass limitations are not subject to antibacksliding provisions (which provisions are created to assure that implemented treatment processes are not reduced; i.e., antibacksliding is concentration-based, not growth-based), but may be subject to the antidegradation provisions. *Comment #: 23-5; Commenter name: City of Thousand Oaks.*

Response: Mass limits are subject to antibacksliding. The CWA does not distinguish between concentration-based and mass-based limits for antibacksliding purposes.

Ambient Background Concentration

Comment: Use of the DL as a surrogate background concentration when all observations are nondetect should not be an option. At the least, the SIP should expressly provide for revisions of ambient concentrations – and resulting permit limitations – determined using the DL as new actual data, based upon lower DLs, become available. *Comment #: 23-7; Commenter name: City of Thousand Oaks.*

Response: Use of DLs as a surrogate to estimate background concentrations is only used for estimating assimilative capacity and only used where no samples with detected concentrations are available. The SIP allows ambient concentrations and resulting permit limits to be revised as new data, based on lower DLs, become available. The method by which nondetect values for background samples are handled is appropriate. By treating them as equal to the DL, no erroneous assumptions are made about the presence of assimilative capacity that may not exist. This is particularly important when the DL is greater than the criterion. In this situation, no

dilution is possible and effluent limitations are set equal to receiving water limitations. When the DL is less than the criterion, a marginal amount of dilution may be allowed. It is the responsibility of the discharger to demonstrate the presence of assimilative capacity through data that quantitatively establish a difference between background concentrations and effluent concentrations. The discharger is not restricted from selecting the most sensitive analytical methods available as long as they meet Section 2.3 Monitoring Requirements.

Modeling

Comment: A steady-state model does not accurately depict receiving water quality conditions. The SIP should be modified to emphasize the use of a RWQCB approved dynamic model and state that results obtained from this model will, in all cases, take precedence over results obtained from the SIP steady-state model. *Comment #s: 3-19, 12-1, 12-2, 12-3; Commenter names: BACWA, SRCSD.*

Response: A steady-state model is the appropriate mechanism for determining effluent limitations with limited data sets. Many dischargers object to the extensive sampling requirements that are needed to implement a dynamic model. Dischargers, therefore, have an option of collecting small amounts of data and using a steady-state model or collecting more data and employing a dynamic model. Dischargers that lack dilution would not be able to put a dynamic model to meaningful use since their receiving water limitations are established as effluent limitations. The SIP clearly allows dynamic models when calculating effluent limitations in Section 1.4.C. If the RWQCB judges the model sufficient, it may be used.

Narrative Toxicity

Comment: Except for the brief discussion in Section 4, the SIP is silent on how the narrative toxicity objective should be implemented in light of the many numeric criteria that are now applicable in California. Narrative objectives that do not include appropriate translator mechanisms do not satisfy the requirements of CWA section 303(c)(2(B). The SIP should be revised to state that implementation of specific numeric criteria through effluent limitations calculated in accordance with the procedures outlined in the SIP supersede any application of a narrative objective for that pollutant. In addition, for those toxic pollutants for which numeric criteria have not been developed, and for other narrative objectives that address toxicity more indirectly, the SWRCB should develop the necessary translator mechanisms or, at a minimum, provide general guidance on the essential elements of this process. *Comment #: 8-9; Commenter name: Western States Petroleum Association.*

Response: The SWRCB will be amending the SIP Toxicity Control Provisions to more clearly state the intent of the section as described. Other changes may be proposed as described in Section 16. At the present time, the SWRCB anticipates adopting a translator mechanism only for methylmercury. A translator mechanism is required when a narrative objective is used as the basis for effluent limits for a priority pollutant with 304(a) criteria guidance. This situation will arise now only for methylmercury since USEPA has promulgated 303 criteria in the NTR and CTR for the other priority pollutants. When USEPA amends the CTR to incorporate a

methylmercury criterion and the SWRCB promulgates an implementation policy, a translator for methylmercury will no longer be required.

Metals Translators

Comments: If reasonable potential exists, use the metal translator with the dissolved criteria and any dilution credit to calculate total metals effluent limits. The current method likely leads to more stringent effluent limits because of potentially large swings in total metals levels. *Comment #s: 3-3, 6-5, 7-18, 14-3, 15-3; Commenter names: BACWA, Sonoma County Water Agency, CASA/Tri-TAC, Town of Windsor WWTF, City of Santa Rosa.*

Response: The current method does not lead to more stringent limits. The current method requires identification of seasonal and spatial variation in the amount of metal that is in dissolved form. Once this is done, it makes no difference whether dissolved or total metals criteria and effluent limits are compared: the results as far as calculation of effluent limits would be identical. Commenters appear to be requesting this change to avoid characterizing variation in dissolved and total concentrations as required by SIP. This is not adequately protective of water quality and could result in toxic effects to aquatic life.

All metals in a discharge have the potential to become dissolved regardless of their status in the effluent. Many factors determine metal ion availability from an aqueous solution. The available, or dissolved, fraction can change with oxidation state, pH, hardness, dissolved solids and suspended solids. The mechanisms responsible for sequestering metals can vary from weak dipole-dipole interactions to full ionic bonding. Blanket assumptions that the dissolved concentration will not change over time are inappropriate. SIP requirements for development of a site-specific translator account for variations in effluent and receiving water quality in a manner that is protective of receiving water beneficial uses.

Comment: The approach for calculating effluent limits for metals criteria using a metals translator contradicts the USEPA Metals Policy and is technically flawed. USEPA's Policy states that dissolved metals objectives are to be used to assess toxicity to aquatic life, whereas the SIP regulates based on total metals levels in receiving waters. Application of the translator should be the last step in the calculations (rather than the first) to properly determine total effluent limits from dissolved objectives. *Comment #: 12-10; Commenter name: SRCSD.*

Response: This situation is best addressed by developing a site-specific translator as described in SIP Section 1.4.1. The commenter describes a situation where a dissolved criterion is adjusted to determine a corresponding total metal criterion through USEPA's default translator as a first step. The next step compares the total metal concentration in the effluent or receiving water with the adjusted criterion. The problem arises because the actual ratio of dissolved to total metal in the effluent or receiving water is not accurately reflected by USEPA's default translator. If a site-specific translator is developed, this concern is eliminated. See also the response to above comments on metals translators and their application for a discussion of why adjusted criteria are compared to total metal concentration.

5. Dilution Credits (Section 1.4.2.1)

Comment: Commenters are opposed to the use of dilution credits in inland surface waters and enclosed bays and estuaries. Attempting to characterize dilution factors for a river with variable flows or enclosed bays and estuaries with variable tides will be an extremely difficult, contentious, and time-consuming task. Dilution factors are only appropriate in ocean waters where the amount of water available for dilution is constant. *Comment #: 26; Commenter name: Heal the Bay.*

Response: Staff recognizes that mixing zones in inland surface waters, enclosed bays, and estuaries have a greater potential for adverse impacts than those in the ocean. In determining the appropriate available receiving water flow, the RWQCB must take into account actual and seasonal flow variations of both the receiving water and effluent, and take into consideration if the discharge is completely mixed or incompletely mixed. The SIP requirements disallow mixing zones that would compromise the beneficial uses or integrity of the water body. A water body with variable tides is incompletely mixed and, therefore, requires a mixing zone study.

Comment: The SIP should prohibit the use of dilution credits in impaired water bodies. The use of dilution credits for impaired waterways and TMDL-derived effluent limits directly conflicts with USEPA TMDL policies. Dilution credits should also be prohibited for bioaccumulative pollutants, pollutants that accumulate in sediment, nutrients, and any pollutant on the State's 303(d) list. Allowable discharges of these pollutants should be calculated based on mass loading. *Comment #s: 26-11, 26-12; Commenter name: Heal the Bay.*

Response: Using the steady state model as described in SIP Section 1.4.B prevents applying a mixing zone in cases where ambient background is greater than the criterion for an impairing pollutant. It is essential that bioaccumulation is considered when making decisions about mixing zones and dilution credits. Organism tissue levels, sediment concentrations, and water body concentrations all inform a permit writer's decision process when evaluating the propriety of a mixing zone and dilution credits. The federal permit regulations generally require that effluent limits be expressed in terms of mass. (40 CFR 122.45(f)).

Comment: For human health criteria, the SIP only allows dilution based on the harmonic mean. SWRCB Order WQ 2002-0015 concludes that the harmonic mean for ephemeral streams or streams which do not have consistent flow cannot be calculated. This precludes consideration of dilution for these situations although the concept of harmonic mean dilution may still have validity. *Comment #: 24-3; Commenter name: Central Valley RWQCB.*

Response: The comment is correct that there is no applicable harmonic mean for discharges to systems that lack flow during all or part of the year. Discharges to an ephemeral stream would have receiving water limits applied directly as effluent limitations. It may be possible to allow seasonal dilution; however, many ephemeral streams may only have background flows for a few hours or days at a time. In these cases, it may not be possible to allow any dilution credit.

Comment: The SIP should clarify:

- How exactly dilution credits are derived from a dilution ratio.
- Which criteria and considerations guide establishment of the dilution credits from the dilution ratio.
- If the discharger receives 100 percent of the available dilution at the appropriate low flows for completely mixed situations.
- The definition of a completely mixed discharge, describing complete mixing at the edge of a rapidly mixed plume.
- That de-designation of a water body is not necessary to allow dilution credit for MUN designated water bodies.

Comment #s: 6-11, 12-12, 23-15; Commenter names: City of Thousand Oaks, SRCSD, Sonoma County Water Agency.

Response: Deriving dilution credits from a dilution ratio is a site-specific consideration that can vary from discharge to discharge. The considerations a permit writer would use to determine dilution credits are described in SIP Sections 1.4.2.1 and 1.4.2.2. There is no requirement for a single discharger to receive dilution credits for 100 percent of the receiving water's assimilative capacity. In fact, the Water Code states that the RWQCBs do not have to allow a discharger to use the receiving water's full assimilative capacity. (Water Code §13263(b)). Whether a discharge is completely mixed is a determination to be made by the RWQCB and is based on information provided by the discharger. This type of determination is best left at the RWQCB level rather than making broad assumptions on a statewide basis in the SIP. The comment that water bodies designated MUN do not need to be dedesignated in order to allow mixing zones for human health criteria is correct and no change in the SIP is needed. SIP Section 1.4.2.2.A (11) states that mixing zones are not sources of drinking water and that this provision supersedes provisions of the SWRCB's Sources of Drinking Water Policy (Resolution No. 88-63). Mixing zones may not be allowed at or near drinking water intakes; however, they may be allowed elsewhere.

Comment: The SIP requires permits to use the closest Regional Monitoring Program (RMP) stations for ambient background concentration and give dilution credit based on discharger-specific dilution studies. Potential problems with this approach are:

- Defining how to measure dilution - issues will consist of where and when to measure, worst case versus average conditions, and whether to acknowledge tidal and seasonal patterns in dilution, etc.
- Compliance with new limits – dischargers may lose more with the new background concentrations than gain with the new dilution credit.
- Higher limits - dischargers near the Golden Gate with higher limits will have to face backsliding and Best Available Technology considerations that could effectively take away any permit advantage.

Simple language that would only apply to the San Francisco Bay, so other regions would not be affected, should be added to the SIP in the section on incompletely mixed discharges. For example:

> *For all deepwater discharges to San Francisco Bay (i.e., those receiving greater than 10:1 dilution), the RWQCB may establish a single allowable dilution value, and establish a single set of monitoring stations for defining background conditions, for the purpose of calculating water quality-based effluent limits. Comment #: 4-4; Commenter name: San Francisco Bay RWQCB.*

Response: Such a SIP change would require a study and CEQA and economic analysis by the SWRCB. The SIP already contains many options for RWQCBs to establish mixing zones and dilution credits they find appropriate. If, in the RWQCB's judgement, a discharger meets the factors for establishing a mixing zone using previously generated data, dilution may be allowed as it has in the past. If previously collected data do not meet the requirements as described in the SIP, other avenues may be pursued. In order to allow dilution in a manner not described in the SIP, a case-by-case exception from SIP provisions could be obtained. It would have to be renewed every five years as described in SIP Section 5.3. USEPA's TSD provides guidance for conditions to consider when conducting a mixing zone study.

6. Mixing Zones (Section 1.4.2.2)

Comment: The application of mixing zones should not be discretionary on the part of the RWQCB staff. Denial of available and appropriate dilution credit, without sound basis, will result in increased expenditures of public resources with no concomitant benefit. *Comment #: 23-6; Commenter name: City of Thousand Oaks.*

Response: We acknowledge the importance of mixing zones for the regulated community, where such dilutions are appropriate. Dilution can only be provided in a manner that ensures that beneficial uses and the integrity of the water body are protected and maintained. RWQCB discretion when determining an appropriate mixing zone is essential to protecting water quality. Numerous site-specific factors, aside from available dilution, influence whether a mixing zone may be allowed. The RWQCBs must take precautions due to the potentially damaging effects of such pollutants on aquatic life and beneficial uses. Attempting to account for all possible considerations through a policy for the entire State would result in both under and over protective effluent limitations. To prevent such problems, RWQCB discretion with respect to mixing zones must be preserved.

Comment: The SIP should not allow mixing zones in inland surface waters and enclosed bays and estuaries. Mixing zones are only appropriate in ocean waters where the amount of water available for dilution is constant. *Comment #: 26-11; Commenter name: Heal the Bay.*

Response: See previous comment and response.

Comment: Commenters state that allowance of mixing zones for bioaccumulative pollutants will not contribute to the further degradation of receiving waters and that receiving waters do not lack assimilative capacity for bioaccumulative pollutants. A body of information exists (e.g., for mercury) to show that the concentration of pollutants in discharges and in ambient waters has no significant relationship to levels in biota or to rates of bioaccumulation. Commenters request that concentration limits for bioaccumulative pollutants be replaced with mass limits and that the SIP provide clearer guidance on appropriate procedures for making assimilative capacity determinations for both bioaccumulative and non-bioaccumulative pollutants. *Comment #s: 3-21, 8-2, 8-4, 8-5, 12-9; Commenter names: BACWA, SRCSD, Western States Petroleum Association.*

Response: In general, all priority pollutants are required to have mass limitations. Concentration-based limits are also generally appropriate because the criteria are expressed in terms of concentration. In terms of adding guidance for determining assimilative capacity, the reasons for not doing so are explained in the previous response.

It is inappropriate to regulate bioaccumulative pollutants only after evidence that they are accumulating in biota has been found. This is a fundamental aspect of both the CWA and the Porter-Cologne Water Quality Control Act. Waiting for an impairment to develop before regulating a discharge is not an option.

Comment: The disallowance of a mixing zone in impaired waters for a pollutant, because its ambient background concentration exceeds the applicable water quality criterion, is a sound provision. To ensure protection of California's waters, extra caution and restraint must be exercised when considering mixing zones for waters impaired due to bioaccumulation and sediment condition. The commenters recommend that the SWRCB make the provisions for disallowance of mixing zones explicit in the text and that mixing zones be disallowed for bioaccumulative pollutants or, if allowed, that the RWQCBs make sure that the water body possesses sufficient assimilative capacity at the mixing zone boundary. *Comment #s: 1-3, 1-4, 1-10, 5-7, 26-12; Commenter names: Heal the Bay, San Diego Bay Council, USEPA Region 9.*

Response: In terms of mixing zones for impairing pollutants, as one comment noted, using the steady-state model as described in SIP section 1.4.B leads to disallowing a mixing zone for situations where ambient background exceeds a criterion. In addition, the SIP currently provides that RWQCBs have the authority to limit or deny mixing zones as necessary to protect beneficial uses. The SIP also states that RWQCBs shall consider the presence of bioaccumulative pollutants in the discharge when determining the extent of or whether to allow a mixing zone. Rather than explicitly prohibiting mixing zones for bioaccumulative pollutants, the SWRCB believes that the RWQCBs should have the discretion to consider this issue on a case-by-case basis.

7. Intake Credits (Section 1.4.4)

Comments: The SIP fails to define intake water concentration. If the observed maximum ambient background concentration and the intake water concentration of a pollutant exceed the criterion, then a facility may be eligible for an intake water credit. An effluent limitation may be established that allows the facility to discharge a mass and concentration of the pollutant that is no greater than the mass and concentration found in the facility's intake water. If the RWQCB determines intake water concentration based on the observed maximum, as it does for ambient background concentration, then the pollutant in the discharge will be allowed to exceed not only the criterion but also the average long-term ambient background concentration in the intake water. In short, even during periods when the ambient background concentration does not exceed the criterion, the discharge would exceed the criterion. *Comment #: 5-5; Commenter name: San Diego Bay Council.*

Trans-basin waters are common in California. Court decrees and regulatory actions can result in transfers and requirements to use alternate water sources (e.g., the Bay-Delta decisions to support fish migration patterns have resulted in different water quality being delivered to areas of Southern California). Without an allowance for intake credits regardless of the source of water, intake credits will be extremely difficult to obtain. *Comment #: 23-8; Commenter name: City of Thousand Oaks.*

The SIP does not provide guidance on how to account for stream variability or statistical variations from test methods in determining the allowable intake credit. Sampling the intake and comparing the results with the discharge will result in exceedances of the intake credit (even if composite sampling is utilized) due to subtle changes in the receiving water. Furthermore, test methods also introduce statistical variation of the reported results that is not accounted for in the SIP. The SIP should provide a methodology to address these issues. *Comment #: 24-4; Commenter name: Central Valley RWQCB.*

Response: The logic behind intake credits is that the discharger was simply passing through pollutants already in the water supply without adding anything in addition. Trans-basin transfers don't appear to follow this logic. Rather than a simple pass-through, they may entail an addition of pollutants from one water body to an entirely different water body.

Stream variability and statistical variations from test methods should not be part of an intake water credit. Intake water should be analyzed at the same frequency as the effluent. Ideally, the intake water should be sampled before the effluent, with the time interval between the two measurements being the time it takes for water to pass through the plant. The effluent concentration would be reported as the difference between the intake water and the effluent (which should be zero). Compliance would be determined on the reported effluent value (the difference between influent and effluent). Credit should be given to the variability between replicate samples of influent and effluent. In this regard, the SIP is intended to be broadly interpreted.

8. Compliance Schedules (Section 2.1)

Comment: Commenters object to the long compliance schedules in the SIP. The federal CWA prohibits compliance schedules that exceed five years for toxic pollutants. Yet the SIP allows compliance periods of up to 10 years for facility upgrades and up to 20 years when a TMDL is required. The SWRCB has affirmed that waiting for a TMDL to be developed is not grounds for delaying the setting of effluent limits where a water body is impaired, nor should it be used as an excuse to exceed water quality standards. The SIP in effect authorizes noncompliance with water quality-based effluent limits for priority toxic pollutants for the entire term of the permit. *Comment #s: 5-26; Commenter names: San Diego Bay Council, Heal the Bay.*

Response: The SIP does not allow a 10-year compliance schedule for a facility upgrade. Rather, the SIP allows a compliance schedule of up to five years; however, the schedule cannot go beyond 10 years from the SIP's effective date. The SIP's TMDL compliance schedule provisions to which commenter refers have not been approved by USEPA and, therefore, have no effect. Currently, the CTR authorizing compliance schedule provisions at 40 CFR 131.38(e) and SIP compliance schedule provisions, which are in effect, are virtually identical. Both provide for compliance schedules of up to five years from NPDES permit issuance, reissuance, or modification.

Comment: Also, the SIP should explicitly state that the mass loading for bioaccumulative pollutants should be limited to current levels, best water quality achieved since 1975, or zero pending TMDL development. In any event, water quality standards must be met immediately. *Comment #s: 5-8, 26-13, 26-14; Commenter names: San Diego Bay Council, Heal the Bay.*

Response: The SIP already contains language stating that the RWQCB should consider limiting the mass and the SWRCB has upheld mass limits in this context in various SWRCB orders. Further revisions are unnecessary.

Comment: Commenters provide a range of reasons and recommendations for longer compliance schedules. Compliance schedules are not needed just to comply with the CTR, but with new TMDLs and wasteload allocations (WLAs) resulting from new 303(d) listings, NTR criteria, State toxicity requirements, Regional Basin Plans, pollution prevention activities, modifications of water quality standards, and installation of treatment processes. The SWRCB's "SRF Loan Program Flow Chart" recognizes that it could take up to 12 years to complete the funding process. The SIP language should be modified to address long-term issues, adopt longer compliance schedules (e.g., 10 to 20 years) applicable to all water quality standards with a caveat that the schedule can be extended upon a demonstration of good faith effort or circumstances beyond the reasonable control of the permittee. The SIP should also accommodate TMDLs by means such as tying compliance schedules to the listing date or adoption schedule of a TMDL. *Comment #s: 7-10, 9-13, 10-6, 23-9, 25-7; Commenter names: CASA/Tri-TAC, City of Riverside, City of Thousand Oaks, LACSD, Southern California Alliance of POTWs.*

Response: USEPA established a 5-year cap for compliance schedules implementing CTR criteria. USEPA did not approve our longer compliance schedule provisions, which were

intended to address TMDLs. Nevertheless, for TMDLs implementing CTR criteria, the TMDL itself could include a compliance schedule. The longer schedule would not be effective unless and until approved by USEPA. As a practical matter, most point source dischargers will likely not need compliance schedules in the TMDL context because they are generally considered insignificant to the impairment. Consequently, they are likely to be allowed to continue discharging the impairing pollutant at their current discharge levels.

Comment: Longer compliance schedules should be established to allow for work by dischargers to lower DLs. Work in this area is needed, and with the threat of third party lawsuits, dischargers are less likely to explore analytical procedures that reduce DLs because such research level data could be used to show violations of the water quality-based effluent limitations (WQBEL). *Comment #: 4-6; Commenter name: San Francisco Bay RWQCB.*

Response: As explained above, there is a five-year cap on compliance schedules.

Comment: When a discharger will not be in compliance with a new effluent limit, the Tentative Permit must have a compliance time schedule included or a time schedule in an accompanying Cease and Desist Order. However, the SIP requires the discharger to comply with the requirements of SIP Section 2.1 before the compliance schedule can be placed in the permit. A Cease and Desist Order places the discharger in legal jeopardy without first being able to demonstrate that it is infeasible to achieve immediate compliance with CTR criterion as allowed by SIP Section 2.1. Once issued, the Tentative Permit cannot be modified to change the schedule should the discharger provide the documentation within the 30-day comment period without reissuing the Tentative Order.

A possible solution is to include the time schedule in the permit, and require the information necessary to demonstrate compliance with SIP Section 2.1 be submitted within a specified period (e.g., 120 days) of permit adoption with a default of no time schedule if information is not provided. The permit should also have a reopener clause in case the demonstration does not justify the time schedule allowed by the permit. *Comment #: 24-5; Commenter name: Central Valley RWQCB***.**

Response: The burden is on the discharger to demonstrate infeasibility up front. If necessary, the permit could be delayed by a month or two until the information is received.

9. Interim Requirements (Section 2.2)

Comment: The interim requirement that allows pollutant minimization to be imposed under a compliance schedule should be revised to reflect the distinction between preparation and implementation of a waste minimization or pollution prevention plan. *Comment #: 8-12; Commenter name: Western States Petroleum Association.*

Response. SWRCB's Office of Chief Counsel recommends against this change. This is an attempt to equate pollution minimization plans with pollution prevention plans under Water Code section 13263.3. Under section 13263.3, the RWQCBs are prohibited from requiring implementation of the plans in permits. This restriction does not apply to pollution minimization plans required under the SIP.

Comment: Schedules not to exceed three years for providing data under interim requirements should commence at the issuance of the permit, not the effective date of the SIP. *Comment #: 23-10; Commenter name: City of Thousand Oaks.*

Response: Dischargers have been notified of data requirements, and this data should be provided to the RWQCB prior to the time the permit is issued. If the RWQCB determines additional information is required, there is no alternative but to have more data gathered as an interim requirement.

10. Interim Limits (Section 2.2)

Comments: The SIP currently states that numeric interim limitations must be based on current treatment facility performance or on existing permit limitations, whichever is more stringent, but provides no guidance on how to establish the interim limitations. Commenters request that the SIP provide specific guidance on the method to be used to determine "current treatment facility performance" and how to statistically derive permit interim limitations. Also, the California Permit Writers Training Tool (CAPWTT) should be modified to incorporate a module to calculate interim limits. *Comment #s: 11-10, 24-6; Commenter names: Central Valley RWQCB, Los Angeles RWQCB.*

Commenters request that the SIP specify that interim limits should be set at levels that a discharger will not exceed, so that a discharger is in compliance until efforts to meet the final effluent limits are concluded. The RWQCBs should also be encouraged to use well established and peer reviewed statistical methods, similar to the approach taken in the San Francisco Bay region, for calculating performance-based interim limits. *Comment #s: 9-14, 12-19; Commenter names: LACSD, SRCSD.*

Commenter supports the requirement in the SIP for establishing interim numeric limitations on the basis of current treatment facility performance or on existing permit limitations, whichever is more stringent. *Comment #: 1-7; Commenter name: USEPA Region 9.*

Response: SWRCB staff are considering the development of additional training tools that would be used to educate staff on a range of possible appropriate methods for calculating interim limits.

11. Monitoring/Reporting (Sections 2.3, 2.4)

Comment: Commenters recommend that the SWRCB update procedures for implementing the monitoring and reporting requirements, Sections 2.3 and 2.4.3 of the SIP, to ensure that:

- As new, more sensitive analytical methods are developed and approved by USEPA, they are used for NPDES compliance monitoring.
- Deviations from the SIP and 40 CFR §136 requirements allowed under SIP Section 2.4.3 are given adequate review by the State and are consistent with federal NPDES requirements.

Comment #s: 1-6, 11-6; Commenter names: Los Angeles RWQCB, USEPA Region 9.

Response: The State Office of Administrative Law will not approve prospective incorporation of federal regulations; consequently, the SIP has to be amended to incorporate more current analytical methods and MLs. Deviations in method practices are not allowed unless specified in the method text or through a USEPA-granted Alternate Test Procedure approval. This is consistent with federal regulations. Any deviation must also be approved by the discharger, the RWQCB, and the SWRCB's QA/QC officer; consequently, SWRCB staff believe that the review process is adequate and that there is no reason to amend this portion of the SIP.

Comment: The SWRCB should adopt the more protective approach of assuming that criteria are being exceeded when the detection levels are higher than the criteria. This shifts the burden to the discharger to show that there is no violation and creates a more appropriate incentive (i.e., gather data and use a more sensitive analytical method) in order to remove the effluent limitation from the permit. *Comment #: 26-7; Commenter name: Heal the Bay.*

Response: The discharger should not be considered to be non-compliant unless there is evidence that the discharge is over the effluent limitation.

Comment: Dischargers who have done a pollution prevention plan under §13263.3(d) should be deemed to have fulfilled the requirements of a pollution minimization plan (PMP) pursuant to this section only if they also comply with actions 1, 2, and 5 of the PMP requirements. *Comment #: 26-18; Commenter name: Heal the Bay.*

Response: The SIP says that dischargers who have done a pollution prevention plan under Water Code section 13263.3(d) "shall be considered to fulfill the PMP requirements of this section." That would be irrespective of whether they meet the specific PMP requirements of the SIP.

12. MLs (Sections 2.4.2, 2.4.3)

Comments: Commenters are opposed to the MLs in Appendix 4 for the following reasons:

- Neither public agency nor commercial laboratories could meet all the MLs.
- There was no controlled study done to validate the information provided by the certified laboratories, and it is likely that confusion over the actual meaning and interpretation of the ML concept at that time resulted in wrong information.
- Assumptions that were not correct were used in developing the MLs for organic constituents.

To resolve these issues, an interlaboratory study involving both commercial and government laboratories should be conducted. Separate MLs for different methods should be established or the SIP should switch to a practical quantitation limit (PQL) approach, which provides a better approximation of achievable DLs by analytical laboratories. Also one method that provides the best DLs for the majority of constituents should be allowed for compliance purposes. *Comment #s: 3-15, 6-8, 9-22, 10-7, 11-5, 12-18; Commenter names: BACWA, City of Riverside, LACSD, Los Angeles RWQCB, Sonoma County Water Agency, SRCSD.*

Response: Although some laboratories have expressed various reasons for not meeting all of the MLs for methods 624 and 625, other laboratories have taken the necessary steps to meet all MLs for these methods.

The State did review a significant portion of the information submitted by laboratories through an onsite audit. Additional support for the validity of ML values is the existence of labs currently meeting the ML values.

An interlaboratory study could provide ML values that are more refined; however, such studies are very expensive, difficult to conduct, and must be redone each time there is a change in interlaboratory performance. A discharger organization has conducted a limited study, but, at a cost of $15,000. The organization tested only one substance, mercury. Ten labs participated, and several were not currently doing work in California. The study did not account for the differences in performance between the two methods used by the labs. Extrapolation from this limited study would indicate that to run a proper study would take several hundreds of thousands to millions of dollars and would involve over 400 laboratories for all of the priority pollutants by all of the methods capable of analyzing samples for those substances. The study would have to be repeated at a one to two year interval as laboratory performance changed. This is not feasible given current resources.

Comment: The SIP should expressly provide for a straightforward means for dischargers and their laboratories to develop and demonstrate their own matrix-specific reporting levels. These actual matrix-specific reporting levels would supersede the generic reporting levels listed in Appendix 2 of the SIP. *Comment #: 23-11; Commenter name: City of Thousand Oaks.*

Response: Dischargers are allowed to develop their own reporting limits when their sample matrix differs from the simplistic models used to derive reporting limits from MLs. Please note that the ML remains the same as it is simply the lowest calibration standard.

Comment: The current SIP treatment of MLs blocks further advancements in analytical methods to reduce MLs and removes any incentive for dischargers to use more sensitive methods. The SIP should require dischargers to switch to more sensitive ML methods as soon as they are available. Also, MLs should not substitute as compliance-based effluent limits for water quality-based effluent limits. This allows the discharger to violate water quality-based effluent limits with impunity so long as the ML is not exceeded. This provision effectively authorizes the issuance of permits that contain effluent limitations that are less stringent than, and not based on, water quality standards and are, therefore, not authorized by section 301 of the CWA. *Comment #s: 5-9, 26-6, 26-8, 26-9; Commenter names: Heal the Bay, San Diego Bay Council.*

Response: The Board makes every attempt to make available the most current federally approved methods within the Board's requirements for adopting changes to the SIP. The Board cannot automatically change the ML values with each federal promulgation but must go through the public comment, peer-review, CEQA, and economic assessment procedures in order to adopt changes to the SIP. The Office of Administrative Law will not approve prospective incorporation of federal regulations

The SWRCB has made progress in finding ways to gain sensitivity in current methods such as the use of larger sample volumes and highlighting allowed modifications to existing methods that will achieve greater sensitivity. Deviations in method practices are not allowed unless specified in the method text or through a USEPA-granted Alternative Test Procedure (ATP) approval. The SWRCB is also working with USEPA to bring into federal approval proposed new methods that are more sensitive.

Staff disagree that MLs substitute for effluent limits. Water quality-based effluent limitations are established in permits and MLs are utilized for compliance reporting requirements and enforcement guidelines for the RWQCBs.

13. Determining Compliance (Section 2.4.5)

Comments: Commenters request clarification on the following issues related to MLs and compliance determinations:

- The SIP indicates that a PMP is required to allow a discharger that exceeds an effluent limit to be in compliance if the effluent pollutant concentration is less than the ML (see end of SIP Section 2.4.5) while also saying (see beginning of SIP Section 2.4.5) that the discharger is in compliance if the effluent pollutant concentration is not above the ML.

- The permits branch of USEPA expressed a broader interpretation than the recent appeals court ruling (BayKeeper v. SWRCB) that not out of compliance means in compliance.

Comment #s: 3-19, 4-5; Commenter names: BACWA, San Francisco Bay RWQCB.

Response: The SIP does not say that the discharger is in compliance if the pollutant concentration is less than the ML. It says that the discharger is out of compliance if the concentration is greater than the limit and greater than or equal to the ML. We are not aware of any such determination by USEPA.

Comment: In order to determine whether interim limits are appropriate, SIP Section 2.1 requires a threshold determination of the feasibility to immediately comply with the final limit for a particular constituent. The SIP does not specify how RWQCBs should determine feasibility. In the Chevron Order, the SWRCB rejected the San Francisco RWQCB's proposed methodology: for each constituent, the RWQCB compared the maximum effluent concentration observed in the facility's effluent data set to the calculated final effluent limit. This approach does not consider actual ability to meet the final limit but the worst performance captured in the past data set. Basic principles of statistics dictate that the true "worst case" performance over a continuous time period will almost certainly not be captured by sampling at discrete intervals. The SWRCB concluded that "a statistical analysis of the distribution of available data must be used to estimate future treatment performance in determining whether or not compliance is feasible." The SWRCB's approval of the proper statistical analysis of past performance data should be incorporated into the SIP, to provide clear and consistent guidance to all RWQCBs. *Comment #: 8-10; Commenter name: Western States Petroleum Association.*

Response: The Chevron order established state precedent for feasibility determinations; therefore, the suggested amendment is unnecessary. Instead, SWRCB staff will consider the development of training tools for RWQCB permit writers that focus specifically on feasibility determinations.

14. PMPs (Section 2.4.5.1)

Comment: The SIP should be modified to consider cost-effectiveness when establishing the requirements for a PMP. For instance, PMPs should not be required in the following situations:

- Where effluent concentrations are DNQ or non-detects.
- There is only a single sample as a trigger.
- The pollutant has been banned for years.
- Where the costs are disproportional to the potential benefits (e.g., for small dischargers with flows of less than 5 mgd).

Comment #s: 3-18, 6-13, 7-19, 7-20, 7-21, 9-15, 10-8, 12-13, 14-7, 15-7, 18-8, 23-12, 23-13; Commenter names: BACWA, CASA/Tri-TAC, City of Riverside, City of San Jose, City of Santa Rosa, City of Thousand Oaks, LACSD, Sonoma County Water Agency, SRCSD, Town of Windsor.

The SIP should be revised to state that dischargers who have completed a pollution prevention plan under §13263.3(d) will be deemed to have fulfilled the requirements of a PMP pursuant to SIP Section 2.4.5.1 only if they also comply with actions 1, 2, and 5 of the PMP requirements. *Comment #: 26-18; Commenter name: Heal the Bay.*

Response: No change in the SIP is warranted. The SIP states that the RWQCBs may consider cost-effectiveness when establishing PMP requirements. The nature and cost of the PMP should be based on the likely outcome of the PMP and determined as part of the PMP process. If there is no expectation that a PMP would result in lower concentrations of a pollutant in an effluent, it makes little sense to require an expensive, detailed PMP. On the other hand, PMPs are often very cost-effective in terms of obtaining pollutant reductions, so some effort should be devoted to the activity even if effluent improvement is not expected to be substantial. The size of the discharger does not determine the benefits from a PMP. The SIP says that dischargers who have done a pollution prevention plan under Water Code section 13263.3(d) "shall be considered to fulfill the PMP requirements of this section." This would be irrespective of whether they meet the specific PMP requirements of the SIP.

15. Dioxin (Section 3.0)

Comment: The ISWP requires only that certain dischargers monitor for dioxin equivalents. After a three-year monitoring period, the data must be assessed for a determination of "whether further monitoring is necessary." There is no requirement that water quality-based effluent limitations ever be imposed for dioxin equivalents, despite the well-documented presence of dioxins and furans in many California rivers, lakes, bays, and estuaries at levels that exceed narrative toxicity criteria. *Comment #: 5-10; Commenter name: San Diego Bay Council.*

Response: The SIP is silent on the need for water quality-based effluent limits for dioxin equivalents. However, the federal regulations in 40 CFR section 122.44(d) require effluent limits where the discharge of these pollutants has the reasonable potential to violate water quality standards, including both numeric and narrative criteria. This issue is also addressed in the preamble to the CTR; i.e., the need for limits where the discharge of dioxin equivalents has the reasonable potential to cause or contribute to a violation of a narrative toxicity standard.

Comment: No limits should be applicable for dioxin congeners unless PQLs or MLs are included in the SIP. *Comment #: 4-4; Commenter name: BACWA.*

Response: Dioxin congeners are outside the scope of the SIP which addresses only priority toxic pollutants.

16. Toxicity Control Provisions

Comment: SWRCB should provide guidance on numeric benchmarks for evaluation of reasonable potential, setting effluent limitations and conducting toxicity reduction evaluations for narrative objectives. *Comment #: 1-8; Commenter name: USEPA Region 9.*

Response: Staff will propose amendments to the toxicity control provisions to more clearly describe the intent of the section. The intent of the SIP toxicity control provision is to lay out an iterative approach for toxicity control. The toxicity control provisions are summarized below:

- The SIP requires effluent limits for control of chronic toxicity for all discharges that will cause or contribute to chronic toxicity in the receiving waters.

- If an excursion occurs, based on short-term chronic toxicity tests, a Toxicity Reduction Evaluation (TRE) may be required.

- If the discharger fails to conduct the required monitoring or to implement the TRE, the RWQCB may take appropriate enforcement action or impose effluent limits.

Staff may recommend additional changes to the SIP toxicity provisions that may include more detailed direction on the following issues:

- Clarify that, when reasonable potential is established for chronic toxicity, effluent limits may be narrative. Additionally, clarify that numeric effluent limits may be imposed later if the discharger fails to conduct monitoring or to implement the TRE within an appropriate period.

- Lay out a logical framework for determining reasonable potential.

- Provide direction on calculating appropriate numeric WET monitoring triggers or numeric WET limits.

- Provide direction on selection of appropriate endpoints such as IC25 (Inhibition Concentration that would cause a 25 percent reduction in non-lethal biological measurement) versus NOEC (No Observed Effects Concentration).

- Lay out a framework for regulatory responses under a variety of conditions such as requiring accelerated toxicity testing, review of the facility operations and submitting a TRE workplan as needed. Describe under what circumstances the TRE/TIE activities can be terminated.

- Require that the quality assurance language in NPDES permits be expanded to include percent minimum significant difference requirements for WET testing.

Comment: To control and minimize within test variability and increase test sensitivity, the SIP should require that the quality assurance language in NPDES permits be expanded to include

percent minimum significant difference requirements for WET testing. *Comment #: 1-9; Commenter name: USEPA Region 9.*

Response: Staff agrees. See the above response.

Comment: Federal regulations require that states develop translators to bridge the gap between narrative toxicity objective and numeric effluent limits. The SIP is generally silent on how the narrative toxicity objective should be implemented. *Comment #: 8-9; Commenter name: Western States Petroleum Association.*

Response: Staff disagrees that the federal regulations generally require translators. (See the response to Narrative Toxicity comments in Section 4 of this document.) The regulations do require that the states provide information identifying methods that the states will use to regulate point source toxic pollutant discharges to impaired waters based on a narrative criterion for toxic pollutants (40 CFR §131.11(2)). The SIP currently contains this required information. It specifies the chronic toxicity test methods, test species, permissible dilution and control waters for testing, TRE requirements, and permit provisions. USEPA has previously concluded that these provisions satisfy the federal regulations. Proposed amendments to the SIP Toxicity Control Provisions may provide further information, including direction on calculating appropriate numeric chronic toxicity benchmarks from narrative objectives as described previously.

Comment: RWQCBs are continuing to apply the narrative toxicity objective, on a pollutant-specific basis, despite the adoption of specific numeric criteria for those pollutants. The SIP should be revised to require implementation of specific numeric criteria through effluent limitations calculated in accordance with the procedures outlined in the SIP, as opposed to applying a narrative objective. *Comment #: 8-9; Commenter name: Western States Petroleum Association.*

Response: Staff disagrees. See the response in Section 4 under the heading Narrative Toxicity.

Comment: In addition, for those toxic pollutants for which numeric criteria have not been developed, and for other narrative objectives that address toxicity more indirectly, the SWRCB should develop the necessary translator mechanisms or, at a minimum, provide general guidance to the RWQCBs on the essential elements of this process. If the SWRCB concludes that no translators other than acute and chronic toxicity testing are necessary to properly implement the narrative objectives, then that conclusion should be clearly stated in the SIP so that RWQCBs follow a consistent approach to interpretation and application of these objectives. *Comment #: 8-9; Commenter name: Western States Petroleum Association.*

Response: This issue is also addressed in Section 4.0 under Narrative Toxicity.

Comment: The toxicity provisions are unnecessary and should be deleted. Toxicity provisions included in Basin Plans specify testing, toxicity reduction requirements and water quality-based toxicity control and authorize effluent limits for specific Toxicants identified under TIE. *Comment #: 9-16; Commenter name: Sanitation Districts of Los Angeles County.*

Response: Staff disagrees. The SIP's chronic toxicity control provisions were adopted to provide statewide consistency in the regulation of whole effluent toxicity. Staff also believes that the SIP should be amended to include additional direction for toxicity control as described in the previous responses above.

Comment: The toxicity control provisions suggest that a RWQCB should determine reasonable potential (although no method for doing this is provided) and calculate a numeric limit based upon chronic toxicity objectives which may or may not be authorized in some Basin Plans. In addition, chronic toxicity results are not amenable to statistical manipulations, since toxicity descriptors (i.e., NOEC and toxicity units) on their own provide an incomplete or inaccurate measurement of toxicity. *Comment #: 9-16; Commenter name: Sanitation Districts of Los Angeles County.*

Response: Staff disagrees. The applicable federal regulations require that the RWQCBs assess reasonable potential and include an effluent limit, if they find reasonable potential, for whole effluent toxicity. Staff may propose a framework for determining reasonable potential for WET. USEPA's Technical Support Document for Water Quality-based Toxic Control (TSD) (USEPA 1991) provides guidance on the reasonable potential calculation and outcomes applicable to WET.

Comment: At this time, it is not resolved as to whether all the mandates of the Settlement Agreement (Edison Electric Institute, et. al v. U.S. EPA, No. 96-1062 (and consolidated cases) Settlement Agreement) have been met. Until such resolution is reached, the validity, completeness, variability, and the defensibility of regulatory actions based upon WET test results is uncertain. In the interim, it is recommended that the SIP call for the approach that California has been using since 1991; i.e., require monitoring, conduct accelerated testing upon incidence of test failure, and conduct of TIE/TRE upon demonstration of ongoing toxicity defined through a defined pattern of WET test results. *Comment #: 23-14; Commenter name: City of Thousand Oaks*.

Response: Staff disagree. The WET methods codified in Part 136 are approved by the USEPA and placed in the Federal Register (date November 8, 2002).

17. Nonpoint Sources (Section 5.1)

Comment: Section 5.1 of the SIP adopts the "three-tiered approach" from the Nonpoint Source Plan. Voluntary approaches simply have not been effective in dealing with nonpoint source pollution. Nonpoint sources currently pose one of the largest threats to coastal water quality in California. The SWRCB should take stronger action to address nonpoint source pollution. *Comment #: 26-17; Commenter name: Heal the Bay.*

Response*:* SWRCB is currently addressing nonpoint sources as part of the development of guidance on enforcement of the nonpoint sources management plan. After the guidance is adopted, SIP could be updated to be consistent.

18. Site-Specific Objectives (Section 5.2)

Comment: Section 5.2 of the SIP identifies the water-effect ratio (WER) procedure as one method of deriving SSOs. However, commenters feel that the process of developing and adopting an SSO can be very onerous, particularly when the objective being modified is a criterion from the CTR – meaning that the CTR must also be modified by USEPA to effectuate the change. Another option is to allow WERs to be approved as part of the permit process. The SIP should clarify that WERs may be approved as part of the permit process and that adoption of an SSO is not necessarily required. *Comment #s: 7-22, 9-17; Commenter names: CASA/Tri-TAC, LACSD.*

Response: SSOs are objectives (or criteria) designed to come closer than national criteria to providing the intended level of protection to aquatic life at a site by taking into account the biological and/or chemical conditions at a site. They are criteria developed to reflect the conditions at a specific site and do not change the intended level of protection of the aquatic life at the site. SSOs can be lower or higher than national criteria.

The Water-Effect Ratio Procedure is a procedure published by USEPA that takes into account the relevant differences between the toxicity of a chemical in laboratory dilution water (which is used when the national criteria or objectives are developed) and in the site water. In 1994, USEPA issued "Interim Guidance on the Determination and Use of Water-Effect Ratios for Metals." Although most of the guidance also applies to other pollutants, some obviously applies only to metals. This guidance was issued as "interim" in order to allow for changes suggested by users. USEPA accepts WERs developed using this guidance, as well as by using other scientifically defensible protocols.

Presently when an SSO is developed using the WER procedure, it must be approved by the RWQCB, SWRCB, and USEPA. This process can take time.

The SIP can be modified to allow for the approval of WERs as part of the permit process, as Federal regulations permit a state to incorporate WER adjustment provisions into its water quality standards. The State would need to amend its water quality standards to provide a formal procedure, which includes derivation of water–effect ratios, appropriate definition of sites, and enforceable monitoring provisions to ensure that designated uses are protected. Once the provisions are approved (which would be subject to public review), the results of each site-specific application of the procedure would be subject to the public participation requirements in the permit issuance process but would not need to be submitted for further section 303(c) review.

Comment: The SIP should be modified to allow SSOs for standards other than priority pollutants. The wording in the SIP should say, "water quality objective or standard" instead of "priority pollutant criteria or objective." *Comment #: 10-9; Commenter name: City of Riverside.*

Response: This change is unnecessary. SSOs can currently be developed for any standard.

Comment: Section 5.2 of the SIP should be rewritten to clarify that it is the discharger's responsibility to provide the resources and studies (under the RWQCB direction) necessary to support the site-specific basin planning activities. *Comment #: 24-7; Commenter name: Central Valley RWQCB.*

Response: This is somewhat inconsistent with the Vacaville order. In that order the SWRCB said that, under certain circumstances, the RWQCB was obligated to initiate Basin Plan amendments (to change uses). The RWQCB could require the affected dischargers to assist in the effort, through data collection, studies, etc., but couldn't require them to come up with the financial resources necessary to accomplish the task. On the other hand, where a discharger believes that an SSO is appropriate but the RWQCB doesn't necessarily concur, the burden would be on the discharger to do the necessary studies and make a case for the RWQCB.

19. Exceptions (Section 5.3)

Comment: The SWRCB should:

- Clarify the SIP Section 5.3 "concurrence" language for case-by-case exceptions to avoid confusion.
- Consider granting RWQCBs the authority to grant case-by-case exceptions, subject to the same review and approval procedures.
- Consider developing statewide guidelines on key aspects of the categorical exception, including ways to carry out the monitoring and restoration program and best management practices.
- Address the issue of renewability of the exception (it must be subject to the same requirements and procedures as the initial granting).

Comment #s: 1-2, 1-11, 1-12, 1-13; Commenter name: USEPA Region 9

Response: In a memo dated July 8, 2002, a recommended step-by-step procedure was offered to provide assistance to both the discharger and RWQCB in gaining an exception. The procedure lays out steps for expediting an exception and the need for USEPA "concurrence." However, there are two types of case-by-case exceptions. The memo procedure is used to gain an exception from meeting ambient water quality criteria/objectives or effluent limits based on the criteria/objectives for priority toxic pollutants established in the CTR, NTR, and RWQCB Basin Plan. Meeting 40 CFR 131.10(g)(1-6) factors and acquiring USEPA's concurrence are necessary for granting this type of exception. An exception can be granted for specific SIP provisions. In this case, both the 131.10(g)(1-6) factors and USEPA's concurrence are not necessary. An additional memo and step-by-step procedures are currently being drafted to assist with gaining this type of exception.

Shifting authority for exceptions to RWQCBs is under consideration. Staff believes it is advisable for the SWRCB to first develop and implement a few exceptions to better gain experience with the process. It is premature to develop statewide guidelines regarding monitoring, restoration, and best management practices for categorical exceptions. Here again, more actual experience is needed with this process. It is not necessary to amend the SIP to provide further explanation regarding the renewability of exceptions. This again is addressed in the July 8, 2002 memo, and further explanation can be provided if necessary.

Comment: Commenters request that the following changes/additions be made to the categorical and case-by-case exception sections of the SIP:

- Indicate that dewatering discharges associated with drinking water well construction, maintenance, and rehabilitation and other construction projects necessary to maintain drinking water supplies are eligible for a categorical exception.
- Effluent dominated/dependent waters should be eligible for a categorical exception and criteria should be applied at the point of the beneficial use (not end-of-pipe).
- Establish categorical and case-by-case exceptions that encourage the use of high-quality reclaimed water for in-stream habitat restoration and wetland restoration projects.

- Include a categorical exception for specific types of water well discharges (high volume, high flow, lasting less than 30 days) such as aquifer tests, pumping tests, hydrostatic tests, etc.
- Provide more guidance on how to utilize case-by-case exceptions and to make it clear that such exceptions should be applied where effluent limitations would result in criteria that are more stringent than necessary to protect an actual use.
- Provide a more reasonable method for developing exceptions recognizing that exceptions are temporary and must be reviewed on a regular basis.

Comment #s: 4-7, 6-14, 7-23, 7-24, 9-18, 9-19, 9-20, 11-4, 11-7, 14-1, 14-2, 15-1, 15-2, 20-1, 20-2, 21-2; Commenter names: CASA/Tri-TAC, City of Santa Rosa, City of Vacaville, LACSD, Los Angeles RWQCB, Metropolitan Water District of Southern California, San Francisco Bay RWQCB, Sonoma County Water Agency, Town of Windsor.

Response: SIP Section 5.3 provides the RWQCBs the authority to allow categorical exceptions for public entities to fulfill statutory requirements for resource or pest management, or to fulfill statutory requirements under the Safe Drinking Water Act or the California Health and Safety Code. Draining water wells for maintenance and rehabilitation are the types of activities that may qualify for a categorical exception. However, USEPA has stated that while the draining activities must be for purposes of cleaning or maintaining public facilities for water supply, storm water conveyance or water treatment, the exception addresses discharges resulting from the draining aspect rather than from any construction-related aspect of the overall maintenance project. Exceptions for construction dewatering are addressed elsewhere in these comments.

It would not be appropriate to establish a categorical exception for all effluent dependent/dominated water bodies – the result could be excepting hundreds or thousands of water bodies in California from meeting toxics standards, which could have significant adverse impacts to aquatic life, human health, as well as downstream beneficial uses. However, case-by-case exceptions can provide significant permit relief for EDW dischargers in certain situations. For example, as explained in SWRCB Order WQO 2002-0015, case-by-case exceptions can provide interim permit relief while an inappropriate beneficial use is corrected through a Basin Plan amendment.

The request to establish statewide exceptions for use of high-quality reclaimed water for in-stream habitat restoration and wetland restoration projects is too broad. More specific information is needed to address this comment. Additionally, exceptions are meant to be temporary in nature. If there is an underlying water quality standards problem that needs to be addressed, this should occur by evaluation of water quality objectives and beneficial uses. In such cases, exceptions may be useful while the standards issues are being addressed.

If a water quality criterion is more stringent than necessary to protect beneficial uses, development of an SSO could be considered. A case-by-case exception may be appropriate while an SSO is under development.

SWRCB staff is developing procedures for case-by-case exceptions from SIP provisions.

These procedures will be somewhat easier and less time consuming than existing procedures for exceptions from CTR criteria.

Water quality criteria apply to the entire water body, not just at the point of beneficial use.

Comment: There appears to be no means for a qualified biologist to provide verification of restoration of a beneficial use. Also, the SIP does not define the term "qualified biologist." The absence of established criteria and definitions makes it impossible for the discharger to meet the certification requirement. Therefore, the requirement for certification of restoration of beneficial uses by a qualified biologist should be deleted. *Comment #s: 20-1, 20-3; Commenter name: Metropolitan Water District of Southern California.*

Response: It is true that currently there is no definition in the statutes for a "biologist." However, if the SIP were to provide a definition it would limit the discharger's and RWQCB's discretion to decide whether an individual has the necessary qualifications by looking at an individual's expertise as applied to the specific situation. Rather, the focus would be on the title "biologist."

Comment: There is no authority in the Porter-Cologne Water Quality Control Act or the CWA for categorical or case-by-case exceptions and no justification has been provided for their inclusion in the SIP. Moreover, there is no excuse for allowing categorical exceptions, which "may result in impairment of beneficial uses." *Comment #s: 5-11, 26-19; Commenter names: Heal the Bay, San Diego Bay Council.*

Response: USEPA approved both the categorical and case-by-case exception provisions in the SIP. Federal regulations specifically allow variances from water quality standards. 40 CFR section 131.13. Case-by-case exceptions can be granted only if the exceptions will not compromise beneficial uses and public interest will be served. Categorical exceptions are premised on the assumption that they are short-term and that beneficial uses are restored.

Comment: SWRCB Order WQ 2002-0015 determined that a minimum of three years is necessary to process Basin Plan amendments. If this effort fails, the discharger is left with a maximum of two years to bring its facility into compliance with final effluent limitations. For case-by-case exceptions, the SIP should address the issue of the opportunity for relief from this two-year time schedule if the RWQCB, SWRCB, and USEPA do not adopt/approve the Basin Plan amendment. *Comment #: 24-8; Commenter name: Central Valley RWQCB.*

Response: Three years to process Basin Plan amendments is the average time. Individual amendments may take less or more time. Exceptions cannot provide longer compliance schedules; however, exceptions may be appropriate to provide interim permit relief from meeting specific CTR criteria or SIP provisions for a permit cycle while trying to achieve compliance. For example, an exception from meeting a CTR criterion based on an inappropriate beneficial use may be appropriate. In addition, exceptions can be renewed, if necessary, in subsequent, reissued permits.

Comment: Variance relief may become a necessary and important regulatory tool for the future; therefore, the State should formally adopt a provision that allows variances for individual dischargers and that would ultimately allow for variances for multiple discharges in a watershed management context. *Comment #: 18-9; Commenter name: City of San Jose.*

Response: The SIP already provides for this.

20. Storm Water (Introduction, Section 5.3)

Comment: The following principles should be included in the SIP:

- It is not feasible or appropriate to impose numeric effluent limitations on storm water discharges not otherwise covered by USEPA's categorical guidelines.
- A statewide policy for regulating storm water discharges.
- Subject dischargers to an iterative BMP-based approach for storm water discharges, with the imposition of numeric limits only if such an approach is shown to be inadequate on a facility-specific basis.
- Discharges that do not materially contribute to an exceedance of a water quality standard, or that are insignificant in relation to other discharges and water quality conditions should not be subject to numeric limits.
- If numeric limits are imposed for a specific storm water discharge, consider the receiving water body's assimilative capacity, hydrologic complexities of storm water events, background pollutant levels, cost effectiveness of available treatment technologies, significance of the discharge, whether a TMDL is being developed for a particular pollutant, and the appropriate design criteria based on the size and duration of a storm event.
- If numeric limitations are imposed for 303(d)-listed constituents in advance of completing a TMDL, interim limits should be imposed, with a proviso that final limits will be based on the load and waste load allocations reflected in the TMDL.

Comment #s: 8-6, 8-7, 8-8; Commenter name: Western States Petroleum Association.

The SIP should explicitly state that industrial storm water dischargers must comply with water quality-based standards including CTR criteria. Industrial storm water dischargers should also comply with technology-based standards. *Comment #s: 5-4, 26-15, 26-16; Commenter names: Heal the Bay, San Diego Bay Council.*

The SWRCB should clarify the following statements:

- The SIP does not apply to regulation of storm water discharges.
- The SWRCB has also adopted two statewide general permits regulating the discharge of pollutants contained in storm water from industrial and construction activities.

Comment #:11-9; Commenter name: Los Angeles RWQCB.

Response: The SIP does not apply to storm water discharges. See SIP, Introduction, footnote 1.

Comment: Peak excess flow treatment facilities (PEFTF) are distinct from conventional POTWs in that they are designed and constructed to provide storage up to a certain volume, and then, if the storage volume is exceeded, provide screening, disinfection and dechlorination prior to discharge to receiving waters. PEFTFs are not designed to meet secondary treatment standards. Therefore, commenters request that the SIP be revised to state that the SIP does not

apply to discharge of toxic pollutants from PEFTFs designed and constructed in accordance with applicable RWQCB Basin Plans. *Commenter #s: 2-1, 3-12, 7-13; Commenter names: BACWA, CASA/Tri-TAC, East Bay Municipal Utility District.*

Response: This comment appears to be aimed at the bypass prohibition in the federal regulations. Whether the practice described in the comment should be allowed is a subject of nationwide debate.

21. Definitions (Appendix 1)

Comment: Commenters request clarification of the following terms:

- "Low flow" (i.e., RWQCBs may choose not to require SIP analyses for "low flow" discharges).
- "Completely mixed discharges" (should be updated to include bays and estuaries, not just rivers and streams).
- "New" or "existing" discharge (is an existing discharge from a new outfall or other appurtenant facility considered existing? The critical issue is whether a plant and its appurtenant facilities are considered a building, structure, facility, or installation that has never received a finally effective NPDES permit for discharges at the "site").

Comment #s: 3-13, 9-21,17-1,18-6. Commenter names: BACWA, City of San Jose, Lahontan RWQCB, LACSD.

Response: "Low flow" has a specific connotation for receiving waters and is a temporary phenomenon. Small discharges could be defined in terms of percentage of critical (low flow) stream flow, but there are sufficient differences in the circumstances in different parts of the State that a statewide definition becomes problematic. Therefore, the definition of low flow is better left up to RWQCBs.

It is difficult to see how there could be a "completely mixed discharge" to a bay. Completely mixed implies that the discharge mixes completely with the receiving water. A single discharge to a bay could perhaps, over a several week period, be completely mixed, but in the time frame of meeting aquatic life criteria, complete mixing in a bay may not be possible.

The definitions of "new" and "existing" discharger were based on similar CTR definitions. Although a new process added to an existing facility under effluent guidelines might be considered a "new source," the addition of an outfall (or a new process) should not have any bearing on whether a facility is considered "new" or not under the SIP.

22. Special Studies (Appendix 5)

Comment: The Special Studies Policy should provide for and encourage refinements of designated uses and objectives to more accurately reflect actual conditions of a given water body, if appropriate, regardless of compliance issues. The study work plan should include guiding principles and basic decision criteria, study specific definitions and interpretations of key concepts, and guidance on interpretation and use of results. *Comment #: 23-16; Commenter name: City of Thousand Oaks.*

Response: Revision of the Special Studies provisions of the revision is not necessary. SWRCB staff is developing additional tools for site-specific water quality objectives and refinement of beneficial uses. SWRCB contracted with the Great Lakes Environmental Center to prepare a compilation of existing guidance and information on SSO development. This document was completed in July 2003, and is now available to the public. The document explains the three major methods of developing SSOs: water-effects ratios, recalculation procedure, and resident species procedure. It also provides a discussion of the strengths and limitations of these processes. The discussion of strengths and limitations will help interested parties to judge the suitability of a site for an SSO. The document also provides case examples, internet links for more detail, factors to consider when evaluating whether an SSO is appropriate, and factors to consider when designing a study.

The Central Valley RWQCB is addressing the recognized need to review uses in certain water bodies by initially working on site-specific Basin Plan amendments, with the intent of expanding these efforts into more global changes to the Basin Plan, where feasible. This is illustrated by the current work being done on waters in the region. We are working with the RWQCB to conduct use attainability analyses for Old Alamo and Morrison Creeks and the Harding Drain. These studies are evaluating whether cold water habitat, fish spawning, and drinking water supplies are appropriate uses for the three water bodies. We expect to have a draft report in Fall 2003. These studies will be used as basis for subsequent site-specific Basin Plan amendments.

This use reevaluation effort is critical to enable the Central Valley RWQCB to rewrite permits for discharges to these waters. An additional, equally important goal of this effort is to develop a template to assess numerous water bodies over large geographic areas in order to streamline future use attainability analyses. This will enable the RWQCB to address beneficial use designations on a broader scale, e.g. on a watershed or regional basis.

A second example of the Central Valley RWQCB's approach is found in the current effort to revise Basin Plan objectives for turbidity and pH. El Dorado Irrigation District initially undertook work to develop SSOs for turbidity, temperature, and pH for Deer Creek. These objectives were ultimately incorporated into the basin plan. Based on this effort, a group of dischargers, with RWQCB support, is now performing the analyses necessary to support a region-wide Basin Plan amendment for turbidity and pH.